

Short Communications

Patch test sensitization after use of the Compositae mix

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Key words: Compositae mix; sesquiterpene lactone mix; plant extract; active sensitization; patch testing technique; plants; allergic contact dermatitis. © Munksgaard, 1999.

The Compositae mix 6% pet. (Trolab) contains standardized short ether extracts of arnica, German chamomile, feverfew, tansy and yarrow. 576 consecutive patients attending for patch testing between August 1997 and September 1998 were tested with both the sesquiterpene lactone mix 0.1% pet. (Trolab) and the Compositae mix 6% pet. (Trolab). 23 patients had reactions to at least 1 such mix during the week of the tests: 12 had reactions to both mixes; 1 to the sesquiterpene lactone mix alone; and 4 to the Compositae mix alone. 6 had weak reactions, which were interpreted as irritant, to the Compositae mix. 4 individuals returned with late reactions over the ensuing weeks:

Case Reports

Case no. 1

A 34-year-old woman with dermatitis of the hands and feet had been found to be allergic to potassium dichromate 0.5% pet., cobalt chloride 1% pet., and isophorone diisocyanate 1% pet. She returned 4 weeks later with a reaction that had developed in the region where the Compositae mix had been applied. Repeat testing produced reactions at D2 & 4 to the Compositae mix (++ & +++) and to the sesquiterpene lactone mix (?+ & +).

Case no. 2

A 46-year-old nurse with irritant hand dermatitis had been patch tested with no reactions. She returned 5 weeks later with a reaction. Repeat testing produced a reaction to the Compositae mix at D2 (+) and 4 (++).

Case no. 3

A 30-year-old physiotherapist with a clinical diagnosis of facial atopic eczema had been patch tested with a reaction to thimerosal that was thought not to be relevant. She returned after 2 weeks with developing reactions to Compositae mix and sesquiterpene lactone mix. Further tests were not performed.

Case no. 4

A 36-year-old woman had been patch tested following a generalized eczema that had developed on holiday after application of a sunscreen. Patch tests had demonstrated allergy to fragrance mix 8% pet., nickel sulfate 5% pet.,

and Compositae mix 6% pet. She returned 2 weeks after application of the tests with a developing reaction to sesquiterpene lactone mix.

Comment

The sesquiterpene lactone mix 0.1% pet. was developed as a screen to detect Compositae allergy, though higher concentrations induce active sensitization (1). Concerned that the sesquiterpene lactone mix was not sensitive enough (2–4), the Compositae mix has been advocated as a useful additional screen (5, 6).

Our experience suggests that the combination of both the Compositae mix and the sesquiterpene lactone mix exceeds the sensitization threshold for some individuals, resulting in a relatively high risk of active sensitization of 0.5%. This figure could be higher, as many patients may not spontaneously present themselves. In 1 individual, their Compositae allergy extended with the development of a late reaction to the sesquiterpene lactone mix. From the same population base, we have not seen any cases of active sensitization when testing with the sesquiterpene lactone mix alone over a 2-year period.

Whilst the addition of the Compositae mix detected an additional 4 cases of contact allergy, this was equalled by the number of patients whom we sensitized. We suggest that the Compositae mix should not be used in combination with the sesquiterpene lactone mix in a standard series. It would seem more appropriate to restrict its use to aimed testing (6) or, perhaps, as an alternative to the sesquiterpene lactone mix (5). We agree that the mix has value (7), but think that a non-sensitizing combination for inclusion in a standard series has yet to be developed.

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A 15-year study of patch testing to (meth)acrylates

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Patients, Materials and Methods

A retrospective appraisal of all patch test records from our unit from between January 1983 and March 1998

(approximately 14,000 records) was made. Patients with a history of exposure to (meth)acrylates had been patch tested with the Chemotechnique® series available at the time, and where possible to their own suspected product

Table 1. Patch test results

(Meth)acrylate	Abbreviation	Patch test conc. (%) (w/w)	Allergic/ tested	%	Rank
ethyl acrylate	(EA)	0.5	22/255	8.6	4=
butyl acrylate	(BA)	0.5	9/244	3.7	13
2-ethylhexyl acrylate	(2-EHA)	0.5	2/234	0.9	27
2-hydroxyethyl acrylate	(2-HEA)	0.5	24/250	9.6	1
2-hydroxypropyl acrylate	(2-HPA)	0.5	19/210	9.0	3
methyl methacrylate	(MMA)	2	17/352	4.8	10=
ethyl methacrylate	(EMA)	2	11/246	4.5	12
n-butyl methacrylate	(BMA)	2	2/331	0.6	29
2-hydroxyethyl methacrylate	(2-HEMA)	2	29/337	8.6	4=
2-hydroxypropyl methacrylate	(2-HPMA)	2	26/330	7.9	7
ethylene glycol dimethacrylate	(EGDMA)	2	28/345	8.1	6
triethylene glycol dimethacrylate	(TREGDMA)	2	21/343	6.1	9
1,4-butanediol dimethacrylate	(BUDMA)	2	7/255	2.7	16=
urethane dimethacrylate	(UEDMA)	2	2/268	0.7	28
2,2-bis[4-(2-methacryloxyethoxy) phenyl]propane	(BIS-EMA)	1	5/186	2.7	16=
2,2-bis[4-(methacryloxy)phenyl] propane	(BIS-MA)	2	0/250	0	30
2,2-bis[4-(2-hydroxy-3-methacryl-oxypropoxy)phenyl]propane	(BIS-GMA)	2	5/281	1.8	21=
1,4-butanediol diacrylate	(BUDA)	0.1	9/186	4.8	10=
1,6-hexanediol diacrylate	(HDDA)	0.1	7/314	2.2	20
diethylene glycol diacrylate	(DEGDA)	0.1	12/187	6.4	8
tripropylene glycol diacrylate	(TPGDA)	0.1	5/186	2.7	16=
trimethylolpropane triacrylate	(TMPTA)	0.1	4/219	1.8	21=
pentaerythritol triacrylate	(PETA)	0.1	5/180	2.8	15
oligotriacrylate 480	(OTA 480)	0.1	2/177	1.1	26
epoxy diacrylate	(BIS-GA)	0.5	4/175	2.3	19
urethane diacrylate (aliphatic)	(al-UDA)	0.1	2/166	1.2	23=
urethane diacrylate (aromatic)	(ar-UDA)	0.05	2/165	1.2	23=
triethylene glycol diacrylate	(TREGDA)	0.1	14/148	9.5	2
N,N-methylene bis-acrylamide	(MBAA)	1	1/83	1.2	23=
tetrahydrofurfuryl methacrylate	(THFMA)	2	5/147	3.4	14